

Notice of Allowability	Application No.	Applicant(s)	
	10/649,224	SABOURI ET AL.	
	Examiner Jefferey F Harold	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/26/03.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ The drawings filed on 26 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|

DETAILED ACTION

Information Disclosure Statement

1. The references listed in the Information Disclosure Statement submitted on November 17, 2003 and September 27, 2004 have been considered by the examiner (see attached PTO-1449).

Allowable Subject Matter

2. ***Claims 1-15*** are allowed.

3. The following is an examiner's statement of reasons for allowance:

Regarding **claim 1**, Vanderbauwhede et al (United States Patent Application Publication 2001/0021250) discloses a method and device for echo cancellation. Prat et al. (United States Patent 6,804,349) discloses a hybrid transceiver circuit. In addition Vanderbauwhede and Prat disclose a hybrid matching system for use with a transmitter and receiver, the hybrid matching system comprising: a pair of transmitter output nodes for providing a differential transmitter signal for transmission; a pair of receiver input nodes for receiving a differential received signal; a pair of line terminals to interface with a transmission line; an impedance bridge network for coupling the transmitter output nodes to the line nodes via at least one transformer winding; however the prior art of record fails to disclose or fairly suggest a supplemental network interposed between the pair of transmitter output nodes and the impedance bridge network, and interposed between the pair of receiver input nodes and the impedance bridge network, the supplemental network including a bridge network.

Regarding **claim 10**, Vanderbauwhée and Prat disclose a hybrid matching system for use with a transmitter and receiver, the hybrid matching system comprising: a line impedance network for coupling a pair of transmitter output nodes to a pair of transmission line nodes via at least one transformer winding for communication with a transmission line, and including at least one line impedance unit having a value Z_m ; however, the prior art of record fails to disclose a supplemental matching network interposed between the line impedance network and a pair of transmit output nodes, the supplemental matching network including at least one supplemental impedance unit having a value kZ_m ; and a receive path coupling network interposed between the line network and a pair of receive input node.

Regarding **claim 14**, Vanderbauwhée and Prat disclose a hybrid matching system for use with a transmitter and receiver, the hybrid matching system comprising: a line impedance network including at least one inductor for coupling via at least one transformer winding to a pair of line nodes for communication with a transmission line, and for coupling via a pair of receive signal nodes (A, B) to a receive path network; however, the prior art of record fails to disclose or fairly suggest a two-port network interposed between the line impedance network and a pair of transmitter output nodes, the two-port network for coupling via a pair of cancellation nodes (C, D) to the receive path network; and the receive path network coupled to said receive signal nodes (A, B) of the line impedance network, coupled to the cancellation nodes (C, D) of the two-port network and coupled to a pair of receiver input nodes for providing a differential receiver

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input signal to reduce echo from the transmitter output nodes from being present at said receiver input nodes.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F Harold whose telephone number is 703-306-5836. The examiner can normally be reached on Monday - Friday 9 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JFH
MARCH 17, 2005

Jefferey F Harold
Jefferey F Harold
Examiner
Art Unit 2644